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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,010	10/28/2003	David William Abraham	YOR920030018US1	4252
34663 7590 01/26/2007 MICHAEL J. BUCHENHORNER 8540 S.W. 83 STREET MIAMI, FL 33143			EXAMINER WEINBERG, MICHAEL J	
			ART UNIT	PAPER NUMBER
			2827	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/26/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/695,010

Applicant(s)

ABRAHAM ET AL.

Examiner

Michael J. Weinberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-12, 14-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-12 is/are allowed.
- 6) ☒ Claim(s) 2, 3, 14 and 16 is/are rejected.
- 7) ☒ Claim(s) 1-3, 5-7, 15, 16 and 18-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 12/22/2006.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment and Arguments***

1. The specification has been acceptably amended. Claims 1, 2, 6-12, 15, 16, and 18-20 were amended and claims 4, 13, and 17 were cancelled. Claims 1-3, 5-12, 14-16, and 18-20 are pending.
2. In view of the remarks, the word "similar" in the claims this term is believed to be definite. All claim previous claim objections are traversed as a result of the amendments and arguments.

### ***Claim Objections***

3. Claim 1-3, 5-7, 15, 16, and 18-20 are objected to because of the following informalities:

Claims 1 and 15 should likely use the term "orientations of the magnetizations" instead of "orientation of the magnetization" as there are multiple orientations and magnetizations in the recited cell array.

Further in claim 15, "each magnetic memory cell" should be "each similar memory cell". Also, "magnetic memory cells" on the last line should be "similar magnetic memory cells". This is because there are already (normal) magnetic memory cells recited in the preamble.

In claim 19, "cell is" should be "cell are"

Other claims are objected to as depending from an objected claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2, 3, 14, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to **claim 2 (and depending claim 3)**, the claims directly contradict claim 1's recitation of an array comprising *similar* attributes by claiming an array comprising *different* attributes. This contradiction renders the claims indefinite.

Side note: The examiner discussed a potential amendment to claim 1 with Mr. Michael Buchenhorner, reg #33,162 to recite "different or similar" in claim 1. However, support for such an amendment does not appear to be in the specification. Paragraph 22 describes "an embodiment wherein an optimum operating current is determined by sending a *similar* test signal to multiple specially designed reference cells 10, 12 and 14 having *different* operating characteristics." Claim 1, which reflects the indicated allowable subject matter of the previous office action, recites the opposite- applying *different* test write currents to *similar* memory cells. Thus, the two embodiments could not be combined as agreed upon in the telephone interview. In addition, claim 2 was rejected in the previous office action, so it cannot stand on its own.

**Claim 14** is rendered indefinite as it depends from a cancelled claim.

In **claim 16**, there is no antecedent basis for "the array of magnetic memory cells having predetermined attributes". This will be assumed to be the "array of similar magnetic memory cells" recited in claim 15. In addition, claim 16 has a step of

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“determining which reference magnetic memory cells have the orientation of their magnetization altered by the test signals.” However, the claim only recites a single reference magnetic memory cell (see claim 15), so it is not possible to choose one of them. This renders the claim indefinite.

Applicant's cooperation is requested in correcting any further errors of which applicant may become aware in the application.

***Allowable Subject Matter***

6. Claims 8-12 are allowed.
7. Claims 1, 5-7, 15, and 18-20 would be allowable if all claim objections are traversed.
8. The following is a statement of reasons for the indication of allowable subject matter:

With regard to **claims 1 and 5-7**, *in combination with the other limitations of the claims*, the prior art does not teach or suggest an reference cells with similar attributes being tested each with a different write current.

With regard to **claims 8-12**, *in combination with the other limitations of the claims*, the prior art does not teach or suggest that said test write signals are varied with respect to time and wherein the write signals are modified based upon a measured phase difference between the test write signals and the corresponding variations in the orientation of the magnetization of the reference cell.

With regard to **claims 15 and 18-20**, *in combination with the other limitations of the claims*, the prior art does not teach or suggest the particular claimed step of measuring changes in switching characteristics.

### **Conclusion**

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

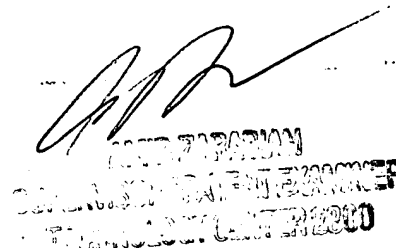
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Weinberg whose telephone number is 571-272-6424. The examiner can normally be reached on M-F 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mjw



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